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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER	
MCCARTHY, CHRISTOPHER S	
ART UNIT	PAPER NUMBER
2113	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/632,881	PAULSEN ET AL.	
	Examiner	Art Unit	
	Christopher S. McCarthy	2113	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *17 September 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-6,8-12,14-18 and 20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,3-6,8,10-12, 14-15 and 17-18, 20* is/are rejected.

7)☐ Claim(s) *2,9 and 16* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *31 July 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. The numbering of claims is not in accordance with 37 CFR 1.126 which requires the original numbering of the claims to be preserved throughout the prosecution. When claims are canceled, the remaining claims must not be renumbered. When new claims are presented, they must be numbered consecutively beginning with the number next following the highest numbered claims previously presented (whether entered or not).

Misnumbered claim 9 (second listed) been renumbered 10, and all proceeding claims are incremented as needed.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1, 6, 8, 12, 14 are rejected under 35 U.S.C. 103(a) as being obvious over Embarty et al. U.S. Patent 5,796,938 in view of Microsoft Computer Dictionary (MCD).

As per claim 1, Embarty teaches a method for verifying operation of an initiator in bus architecture, comprising receiving a selected characteristic for testing (column 3, lines 14-15);

controlling a behavior of a target according to said selected characteristic (column 4, lines 9-14); and validating operation of an initiator, whereby a response of said initiator to said behavior of said target is monitored to ensure proper initiator operation (column 3, lines 7-8), wherein said selected characteristic for testing is at least one of XFER-READY data request size, disconnect boundaries, failure status packets, data overrun injection, data underrun injection, error injection, protocol violations, varying simulated spin up times and scatter gather list variation for data (column 5, lines 57-61) Embarty does not teach wherein the error injection is CRC. MCD does teach, at least, CRC which could be used as one of the parameter for bus testing for Embarty. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the CRC of MCD in the fault injection of Embarty. One of ordinary skill in the art would have been motivated to use the CRC of MCD in the fault injection of Embarty because MCD teaches wherein RCR checks data pattern compares to see if valid (page 116); an explicit desire of Embarty (column 5, lines 54-56).

As per claim 6, Embarty teaches the method as claimed in claim 1, further comprising validating operation by monitoring a second response of said target to said response of said target initiator (column 5, lines 17-21).

As per claim 8, Embarty teaches a system for verifying operation of an initiator in bus architecture, comprising means for receiving a selected characteristic for testing (column 3, lines 14-15); means for controlling a behavior of a target according to said selected characteristic (column 4, lines 9-14); and means for validating operation of an initiator, whereby a response of said initiator to said behavior of said target is monitored to ensure proper initiator operation (column 3, lines 7-8), wherein said selected characteristic for testing is at least one of XFER-

READY data request size, disconnect boundaries, failure status packets, data overrun injection, data underrun injection, error injection, protocol violations, varying simulated spin up times and scatter gather list variation for data (column 5, lines 57-61) Embarty does not teach wherein the error injection is CRC. MCD does teach, at least, CRC which could be used as one of the parameter for bus testing for Embarty. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the CRC of MCD in the fault injection of Embarty. One of ordinary skill in the art would have been motivated to use the CRC of MCD in the fault injection of Embarty because MCD teaches wherein RCR checks data pattern compares to see if valid (page 116); an explicit desire of Embarty (column 5, lines 54-56).

As per claim 12, Embarty teaches the method as claimed in claim 1, further comprising means for validating operation by monitoring a second response of said target to said response of said target initiator (column 5, lines 17-21).

As per claim 14, Embarty teaches the system as claimed in claim 8, wherein said bus architecture operates according to s at least one of the following protocols: SCSI, SAS and Fibre Channel (column 5, lines 57-61)).

2. Claims 3-5, 10-11, 15, 17-18, 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Embarty in view of MCD in view of Zayas et al. U.S. Patent Application US2004/0193747A1.

As per claim 3, Embarty in view of MCD teaches the method as claimed in claim 1, wherein controlling said behavior of said target includes delivering an executing request to said

target (column 3, lines 14-15). Embarty does not teach wherein said execution request including a vendor unique command. Zayas does teach a vendor unique command (VUC) (abstract). It would have been obvious to one of ordinary skill in the art to use the VUC of Zayas in the process of Embarty. One of ordinary skill in the art would have been motivated to use the VUC of Zayas in the process of Embarty because Zayas teaches his VUC's to aid in the testing of storage dvice designs (¶ 0003); an explicit desire of Embarty (column 2, lines 43-54, column 3, lines 7-8).

As per claim 4, Embarty in view of MCD in view of Zayas teaches the method as claimed in claim 3. Zayas teaches wherein said vendor unique command relates to said selected characteristic for testing (¶ 0003).

As per claim 5, Embarty in view of MCD in view of Zayas teaches the method as claimed in claim 4. Embarty teaches wherein said behavior of said target is controlled by the execution of the execution request by said target (column 4, lines 9-14).

As per claim 10, Embarty in view of MCD teaches the system as claimed in claim 8, wherein said means for controlling said behavior of said target includes means for delivering an executing request to said target (column 3, lines 14-15). Embarty does not teach wherein said execution request including a vendor unique command. Zayas does teach a vendor unique command (VUC) (abstract). It would have been obvious to one of ordinary skill in the art to use the VUC of Zayas in the process of Embarty. One of ordinary skill in the art would have been motivated to use the VUC of Zayas in the process of Embarty because Zayas teaches his VUC's to aid in the testing of storage dvice designs (¶ 0003); an explicit desire of Embarty (column 2, lines 43-54, column 3, lines 7-8).

As per claim 10, Embarty in view of MCD in view of Zayas teaches the system as claimed in claim 10. Zayas teaches wherein said vendor unique command relates to said selected characteristic for testing (¶ 0003).

As per claim 15, Embarty teaches a method for verifying operation of an initiator in a bus architecture, comprising: receiving a selected characteristic for testing (column 3, lien s14-15); delivering an execution request to said target (column 3, lines 4-15), executing of said execution request by said target (column 4, liens 9-14); and validating operation of an initiator (column 3, lines 7-8), whereby a response of said initiator to a behavior exhibited by said target is monitored to ensure proper initiator operation, wherein said desired characteristic for testing is at least one of XFER-READY data request size, disconnect boundaries, failure status packets, data overrun injection, data underrun injection, error injection, protocol violations, varying simulated spin up times and scatter gather list variation for data (column 5, lines 57-61) Embarty does not teach wherein the error injection is CRC. MCD does teach, at least, CRC which could be used as one of the parameter for bus testing for Embarty. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the CRC of MCD in the fault injection of Embarty. One of ordinary skill in the art would have been motivated to use the CRC of MCD in the fault injection of Embarty because MCD teaches wherein RCR checks data pattern compares to see if valid (page 116); an explicit desire of Embarty (column 5, lines 54-56). Embarty also does not explicitly teach said execution request including a vendor unique command. . Zayas does teach a vendor unique command (VUC) (abstract). It would have been obvious to one of ordinary skill in the art to use the VUC of Zayas in the process of Embarty. One of ordinary skill in the art would have been motivated to use the VUC of Zayas in the process of Embarty because

Zayas teaches his VUC's to aid in the testing of storage dvice designs (¶ 0003); an explicit desire of Embarty (column 2, lines 43-54, column 3, lines 7-8).

As per claim 17, Embarty in view of MCD in view of Zayas teaches the method as claimed in claim 15. Emabrty teaches wherein said behavior of said target is controlled by the execution of the execution request by said target (column 4, lines 9-14).

As per claim 18, Embarty in view of MCD in view of Zayas teaches the method as claimed in claim 15, Emabrty teaches further comprising validating operation of said target by monitoring a second response of said target to said response of said initiator (column 5, lines 17-22).

As per claim 20, Embarty in view of MCD in view of Zayas teaches the method as claimed in claim 15. Emabrty teaches wherein said bus architecture operates according to at least one of the following protocols: SCSI, SAS and Fibre Channel (column 5, lines 57-61).

Allowable Subject Matter

3. Claims 2, 9, 16 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

4. Applicant's arguments with respect to all claims have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher S. McCarthy whose telephone number is (571)272-3651. The examiner can normally be reached on M-F, 9 - 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Beausoliel can be reached on (571)272-3645. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Christopher S. McCarthy
Examiner
Art Unit 2113